

IN THE CLAIMS:

1. (Currently Amended) A ceramic honeycomb structure comprising a first circumferential wall, a plurality of through-holes surrounded by partition walls, ~~the ceramic honeycomb structure having an and a second~~, outer circumferential wall obtained by firing a layer of a raw material applied to ~~an inner~~ the first circumferential wall of the ceramic honeycomb structure wherein a thermal expansion coefficient of the second, outer circumferential wall is larger than a thermal expansion coefficient of the first circumferential wall, for applying compressive force in a direction of a diameter of the honeycomb structure of ~~to~~ to an inside partition wall portion in the ceramic honeycomb structure so that, when the structure is cooled from the firing temperature, ~~compression is applied to the inside partition wall portion from the outer circumferential wall portion~~.
2. (Previously Presented) A ceramic honeycomb structure as defined in claim 1, wherein a material for the outer circumferential wall of the ceramic honeycomb structure is the same as or different from the ceramic honeycomb structure material .
3. (Previously Presented) A ceramic honeycomb structure as defined in claim 1, wherein the partition walls of the ceramic honeycomb structure have a thickness of less than 0.1 mm.
4. (Previously Presented) A ceramic honeycomb structure as defined in claim 1, wherein the ceramic honeycomb structure has a cell density of the through-holes of 62 cells/cm<sup>2</sup> or more.

5. (Currently Amended) A ceramic honeycomb structure as defined in claim 1, wherein the second, outer circumferential wall portion is thicker than an inside partition wall portion of the ceramic honeycomb structure.
6. (Original) A ceramic honeycomb structure as defined in claim 1, wherein the ceramic honeycomb structure has an open frontal area of 86% or more.
7. (Original) A ceramic honeycomb structure as defined in claim 1, wherein the ceramic honeycomb structure has a bulk density of  $0.26\text{g/cm}^3$  or less.
8. (Previously Presented) A ceramic honeycomb structure as defined in claim 1, wherein the outer circumferential wall is made of crystalline cordierite.